hypertension, are exposed to such hemorrhages, and so to permit of efforts being made to forestall such complications in diminishing the tension by proper therapeutic means (mode of life, purgatives, iodides, etc.).

So-called Rheumatic Diseases of the Eye.—ANTONELLI (*Archiv f. Augenheil.*, August, 1906, p. 404) maintains that the term "rheumatic" should be abandoned in ophthalmology. Embraced under this term various disease processes have been included which have nothing in common. Ocular diseases (uveitis and retinochoroiditis) following acute arthritis or polyarthritis are of infectious or infectiotoxic origin. Those occurring in pseudorheumatism belong to syphilis, tuberculosis, or gonococcic infection. Of those arising after catching cold, iritis rheumatica, scleritis, keratitis, episcleritis, and tenonitis in subjects affected with chronic rheumatism, it is not yet proved that all are due to the diathesis in question.

The ocular diseases ascribed to "arthritism" are in part due to autointoxication, as, for example, many forms of chronic blepharitis or blepharoconjunctivitis, and in part to gout, as for example many varieties of retinochoroiditis.

HYGIENE AND PUBLIC HEALTH.

UNDER THE CHARGE OF
CHARLES HARRINGTON, M.D.,
PROFESSOR OF HYGIENE IN HARVARD MEDICAL SCHOOL, BOSTON, MASSACHUSETTS.

Wood Alcohol Poisoning from Varnish—An unusual case of poisoning by wood alcohol is reported by H. GIFFORD (*Ophthalmic Record*, June, 1906). After working about four hours in a room of 1800 cubic-feet capacity, tightly closed so as to keep out dust, applying to the woodwork first a stain and then a varnish, both made with wood alcohol, a man became absolutely blind, but had no other symptoms of poisoning. After a week, vision began to return, but after a few weeks it began to fail again, and in six months he was quite unable to see. Very slow improvement began again, and in about a year he was able to find his way about the streets.

Toxin of Bacillus Enteritidis of Gaertner.—E. P. CATHCART (*Jour. of Hygiene*, April, 1906, p. 112) reminds us that food infected with Bacillus botulinus or Bacillus enteritidis is much more likely to be dangerous on account of absence of obvious signs of putridity than that which is really putrid and has bad odor, color, and flavor. With Bacillus botulinus there is but faint odor; with Bacillus enteritidis no odor at all. The most dangerous of all is the latter, since cooking does not destroy its toxicity. Experiments concerning the toxins of various food poisoning organisms led Cathcart to the following (among other) conclusions: Cultures of Gaertner's bacillus grown in broth do not excrete any large amount of toxin into the fluid medium. Suspensions in broth made from ordinary agar cultures and killed by heat (60° C. thirty minutes) are fairly toxic. Gaertner toxin withstands heating to 100° C. for thirty minutes. Paratyphoid β bacillus cultures on autolysis yield a filtrate quite as toxic as those from Gaertner's bacillus. Paratyphoid toxin resists 100° for thirty minutes. Colon toxin is not heat resistant.

Boron Preservatives and Increased Mortality in England and Wales from Diseases of the Kidneys.—In reply to the dogmatic statement of H. W. Wiley, of the Bureau of Chemistry, that the large increase (asserted to be 30 per cent.) in kidney diseases in England is due without doubt to the use of coloring matters and preservatives in foods, and to the statement of Richard Jones that the gradual increase in the death rate from acute nephritis during the past twenty years is due to the excretion of food preservatives, especially the boron compounds, by the kidneys, B. FARADAY GILES (*Lancet*, 1906, ii, 1347) shows by a tabulation of the figures of the reports of the Registrar-general that before boron preservatives were in general use, the rate of increase in mortality from what were returned as nephritis and Bright's disease was even greater than afterward. Thus, during the decade 1861–1870 the annual rate per million (England and Wales) was 112; during 1871–1880 it was 199. Again, the annual mortality per million due to diseases of the urinary system, during the quinquennial periods 1861–65, 1866–70, 1871–75, 1876–80, ran thus: 246.4, 287, 326, 375. Hence before the use of boron preservatives had become important the mortality due to all diseases of the urinary system had already increased 52 per cent. in twenty years.

Poisoning by Saccharin.—LUTH, of Bajohren (*Lancet*, April 7, 1906), a town on the Russian frontier, describes the case of a woman who, after a dispute with her husband, had swallowed about 2 grams of saccharin. When a medical man arrived, about fifteen minutes later, he found her lying on the floor, and her condition was at first supposed to be due to alcoholic intoxication. She was unconscious, her face was flushed, she foamed at the mouth, and suffered from convulsive attacks with choking; her respiration was frequent and her pulse was weak, very quick, intermittent, and irregular. Under artificial respiration and massage of the heart, the pulse within half an hour became stronger and regular, and the respiration became normal. After about forty-five minutes the patient awoke and was quite well. Poisoning by saccharin is rather rare. It is remarkable that severe symptoms occurred within only a few minutes and as rapidly disappeared. In Germany saccharin is sold to the public only on medical prescription, and the woman had therefore purchased the drug from a neighboring Russian pharmacy.

Detection of Sterilized Milk.—Raw milk has the property of reducing certain substances such as indigo, litmus, and methylene blue, which are converted into colorless compounds, but whether this property is due to bacteria or to a natural reducing ferment is the subject of controversy. Schardinger found that methylene blue is decolorized more rapidly if a slight amount of formalin is added to the reagent, and on this fact H. SMIDT (*Arch. f. Hyg.*, 1906, lviii, p. 313) bases his method of distinguishing raw from cooked milk, using as reagents an aqueous solution containing 2.5 per cent. each of formalin and saturated alcoholic solution of methylene blue, and another containing the same amount of methylene blue, but no formalin. Added in the proportion of 1 to 20 parts of milk, the first-named reagent alone is decolorized by fresh, raw milk, but both are decolorized by stale milk, while neither is affected by boiled milk in ten minutes, at a temperature of 104° to 122° F. From his experiments he concludes that if a simple solution of methylene blue is decolorized by raw milk, the action is attributable to bacteria present in the milk; that the speedy reduction of the methylene blue-formalin mixture by fresh, raw milk can be explained only by the presence of a ferment that acts catalytically on formalin; that the action of an added alkali on the milk sugar produces a reducing substance, and that prolonged boiling causes the production of substances which can decolorize methylene blue, but only at the boiling point. He believes that milk contains no preformed reductase.

The experiments of E. SELIGMANN (*Zeit. f. Hyg. und Infectionskrankheiten*, 1907, lii, 161) lead him to the conclusion that the active agents are bacteria. He found that while sterilized milk no longer can bring about the reduction, the property can be restored by inoculating it with a trace of sour milk. He obtained cultures of a short, thick bacillus, which on inoculation into sterile milk quickly restores the reducing property. He believes that reductase and superoxydase are organized ferments and are products of bacterial growth; and that certain decomposition products of casein have similar power to decompose hydrogen peroxide. The oxydases are not products of bacterial growth. C. J. KONING (*Revue gén. de laiterie*, 1906, No. 8, p. 186) asserts that milk contains no oxydases, and that positive reactions with tincture of guaiacum are due to the presence of peroxide in the reagent, but peroxydases are always present, and diastases as well. The latter can be produced in sterile milk by inoculation with the common milk bacteria, and they are increased in the milk of pathological udders. He asserts that Schardinger's reaction is due to reductase, which may be produced by bacteria, and, like catalase, is increased by udder disease and by the presence of leukocytes.

Notice to Contributors.—All communications intended for insertion in the Original Department of this JOURNAL are received only *with the distinct understanding that they are contributed exclusively to this* JOURNAL.

Contributions from abroad written in a foreign language, if on examination they are found desirable for this JOURNAL, will be translated at its expense.

A limited number of reprints in pamphlet form, if desired, will be furnished to authors, *provided the request for them be written on the manuscript.*

All communications should be addressed to—

DR. A. O. J. KELLY, 1911 Pine Street, Philadelphia, U. S. A.